

Amendments to the Claims

The following claims replace all previous claims.

Listing of Pending Claims

1. (Currently Amended) A still image capturing device, comprising:
an electronic image sensor including a plurality of pixel elements;
a lens for focusing light from a scene onto said image sensor;
an electronically actuatable shutter device positioned between said lens and said image sensor, including a plurality of individually addressable and actuatable shutter elements, with a shutter element of said plurality of individually addressable shutter elements substantially corresponding to at least one of said plurality of pixel elements;
a memory storing ~~an exposure threshold and one or more exposure patterns;~~
a processor communicating with said image sensor, with said shutter device, and with said memory, said processor being configured to control ~~controlling~~ said plurality of shutter elements according to ~~said exposure threshold and/or according to an exposure pattern stored in said memory, whereby different shutter elements of said shutter device may be light transmissive for different lengths of time, and thereby exposing corresponding pixel elements of said image sensor to focused light from said lens for different lengths of time,~~ and said processor being configured to automatically generate said exposure pattern prior to capturing an image by controlling the shutter device to expose at least a first and second subset of the plurality of pixel elements to light for a duration of time and measuring the level of light reaching the first and second subsets of pixel elements, wherein the exposure pattern comprises a first pixel unit exposure duration and a second pixel unit exposure duration, said first pixel unit exposure duration being associated with the first subset of said plurality of pixel elements, said second pixel unit exposure duration being associated with the second subset of said plurality of pixel elements, said first pixel unit exposure duration being longer than said second pixel unit exposure duration, and said second pixel unit exposure duration being greater than zero seconds.

2. (Original) The apparatus of claim 1, wherein said shutter device comprises a liquid crystal display (LCD) shutter element comprising a two-dimensional array of individually addressable and actuatable shutter elements.

3. (Original) The apparatus of claim 1, wherein said shutter device comprises a microelectromechanical shutter element comprising a two-dimensional array of individually addressable and actuatable shutter elements.

4. (Currently Amended) The apparatus of claim 1, further comprising a shutter button, wherein said memory further includes a predetermined image exposure period that controls an overall exposure duration of an image capture said processor is configured to automatically generate said exposure patters in response to a user partially depressing the shutter button.

5. (Currently Amended) The apparatus of claim 1, wherein ~~said image sensor comprises film~~ said processor is configured to compare said measured level of light to a predetermined minimum light level.

6. (Currently Amended) The apparatus of claim 1, wherein ~~said image sensor comprises an electronic image sensor~~ is a CCD sensor or a CMOS sensor.

7. (Currently Amended) The apparatus of claim 1, wherein ~~said exposure pattern comprises two or more pixel unit exposure durations,~~ in response to activation of a shutter button, the processor is configured to control the shutter device to expose to light (1) the first subset of pixel elements for an amount of time not greater than the first pixel unit exposure duration and (2) the second subset of pixel elements for an amount of time not greater than the second pixel unit exposure duration.

8-20. Cancelled.

21. (Currently Amended) An ~~imaging module for an imaging capturing device,~~
comprising:

an electronic image sensor including a plurality of pixel elements; and
an electronically actuatable shutter device positioned adjacent to said image sensor,
including a plurality of individually addressable and actuatable shutter elements, ~~with a~~
~~shutter element of said plurality of individually addressable shutter elements substantially~~
~~corresponding to at least one of said plurality of pixel elements;~~

~~wherein said shutter device selectively exposes said image sensor to light from a~~
~~scene to be imaged for different amounts of time on an individual pixel level~~

a memory storing an exposure threshold;

a shutter button;

a processor communicating with said image sensor, said shutter device, said memory,
and said shutter button, said processor being configured such that in response to activation of
the shutter button, the processor (1) controls the shutter device so that all of the shutter
elements are light transmissive, (2) monitors at least a subset of the plurality of pixel
elements to detect whether the intensity of a light signal from the subset exceeds the
exposure threshold, and (3) in response to detecting that the intensity of the light signal
exceeds the threshold, controls the shutter device so that the shutter elements corresponding
to the subset become non-light transmissive.

22. (Previously Presented) The imaging module of claim 21, wherein said shutter device comprises a liquid crystal display (LCD) shutter element comprising a two-dimensional array of individually addressable and actuatable shutter elements.

23. (Previously Presented) The imaging module of claim 21, wherein said shutter device comprises a microelectromechanical shutter element comprising a two-dimensional array of individually addressable and actuatable shutter elements.

24. (Currently Amended) The imaging module of claim 21, wherein said ~~image sensor comprises an~~ electronic image sensor is a CCD sensor or a CMOS sensor.

25. (Currently Amended) The imaging module of claim 21, wherein said ~~shutter device selectively exposes said image sensor in accordance with an exposure pattern having two or more pixel unit exposure durations~~ subset of pixel elements a predetermined pixel element or group of pixel elements.